Date: Sun, 10 Apr 94 18:40:37 PDT

From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>

Errors-To: Info-Hams-Errors@UCSD.Edu

Reply-To: Info-Hams@UCSD.Edu

Precedence: Bulk

Subject: Info-Hams Digest V94 #401

To: Info-Hams

Info-Hams Digest Sun, 10 Apr 94 Volume 94 : Issue 401

Today's Topics:

9k6 mods for IC-471

ANS-099 BULLETINS

Beg To Differ, Tnx

Delivery Failure Report

Ham radios on planes - De

HELP! The FCC will not is

IPS Daily Report - 10 April 94

online repeater directory

We wish you best 73's

WWV/H's Antennas

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu> Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu> Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: Sun, 10 Apr 1994 23:52:54 GMT

From: netcomsv!netcom.com!wb6w@decwrl.dec.com

Subject: 9k6 mods for IC-471

To: info-hams@ucsd.edu

...I've modified my Icon 271E for 9600 (also an MFJ TNC/modem). As I recall the signal injection point I used was the wiper of the audio level pot leading to the varactor. There is a blocking cap on this line already. I fed my sig thru a non-polarized 1mmf cap and a 1K resistor.

The "conventional wisdom" scheme is to connect through a cap & 10K resistor to the varactor - but this does not seem to work.

By the by - the circuit in this area is the same in several Icom radios, the IC-290 and IC-490 being among them.

73 de Glenn wb6w@netcom.com

Date: 10 Apr 94 22:25:51 GMT From: news-mail-gateway@ucsd.edu

Subject: ANS-099 BULLETINS To: info-hams@ucsd.edu

SB SAT @ AMSAT \$ANS-099.01 W5RRR/JSC ARC LANDLINE BBS

HR AMSAT NEWS SERVICE BULLETIN 099.01 FROM AMSAT HQ SILVER SPRING, MD APRIL 9, 1994 TO ALL RADIO AMATEURS BT

BID: \$ANS-099.01

New Landline BBS Provides STS-59 SAREX Information

The Johnson Space Center Amateur Radio Club has set up a telephone computer bulletin board (BBS). The purpose of the BBS is to provide a source of current Space Shuttle mission Keplerian Elements.

There are limited number of BBS files available for downloading. Among the current files are:

- o Current and old element sets for the mission in progress
- o Current mission information
- o Shuttle Amateur Radio Experiment (SAREX) information
- o Recent Space Shuttle Mission Schedules and Manifests
- o Astronaut/Cosmonaut Ham List
- o Current JSC Amateur Radio Club Newsletter

We ask that no files be uploaded to the BBS. The telephone number is $(713)\ 244-5625$. Our modem can handle all bauds up to and including 9600 baud. The parameters are N-8-1.

The BBS is currently running in ProComm HOST mode, so the logon is very simple and downloading is easy. After logging in, you will see the Welcome Screen describing the BBS. Also, the Welcome Screen contains the current and latest element set number (e.g., JSC008) loaded on the BBS. Check it against your last set so you won't waste your time duplicating a set you already have. Press ENTER to bring up the second page containing the current Space Shuttle Keplerian Element Set. If you have a file capture or screen capture function in your communications software, then you

should use it for this page. That way, you won't have to go through the file download process if all you wanted was the latest element set. If you have any comments for the Club or BBS sysop, leave a message and we will respond.

[The AMSAT News Service would like to thank Dale Martin (KG5U), KG5U @ KA5KTH.#setx.tx.usa.na, Secretary of the Johnson Space Center ARC Houston, Texas (W5RRR)]

/EX
SB SAT @ AMSAT \$ANS-099.02
FUJI AWARD PROGRAM DETAILS

HR AMSAT NEWS SERVICE BULLETIN 099.02 FROM AMSAT HQ SILVER SPRING, MD APRIL 9, 1994
TO ALL RADIO AMATEURS BT BID: \$ANS-099.02

JJ1WTK Provides Information About "FUJI" Award

Amateur Satellite "Fuji", SWL Amateur Satellite "Fuji" applicants are required to make contacts with 10 different amateur stations through the amateur radio satellite "Fuji" (only contacts in CW or SSB mode), and obtain the QSL cards from those stations. This award applies for both F0-12 (JAS-1) which was launched at 20:45 UTC in 12-AUG-1986 and JAS-1B which was launched on 07-FEB-1990. Any contact thru F0-12 or F0-20 is good for the "Fuji Award" application. A fee of 8 IRCs or US \$4 will be charged per award. An additional 2 IRCs will be charged for air mail delivery regardless of the number of the awards claimed. If QSL cards are submitted, sufficient funds for return postage will also be required. All correspondences should be sent to:

Japan Amateur Radio League - Award Desk, 1-14-2 Sugamo, Toshima, Tokyo 170, Japan

[The AMSAT News Service would like to thank Kazu Sakamoto (JJ1WTK) for this bulletin item. JJ1WTK can be reached at his e-mail address of qga02014@niftyserve.or.jp]

/EX
SB SAT @ AMSAT \$ANS-099.03
POSAT-1 VOICE CONTACTS

HR AMSAT NEWS SERVICE BULLETIN 099.03 FROM AMSAT HQ SILVER SPRING, MD APRIL 9, 1994
TO ALL RADIO AMATEURS BT

BID: \$ANS-099.03

CT1ERC Reports POSAT-1 Voice Contacts Made

CT1ERC reports that a special event amateur satellite station, CU2APO, was setup on the island of San Miguel in the AZORES for a technical exhibition to a youth grounp using POSAT-1. This demonstration was arranged by the PoSAT Consortium in which they agree to switch the satellite to operate on the amateur frequencies and it was configured as a FM transponder for a single pass to allow voice contacts between this island in the middle of the Atlantic ocean and the continent. Everything was arranged overnight and on short notice so unfotunately there was not enough time to send out notices of this event for other radio amateurs to participate. However, CT1ERC wishes to pass allong his report of the this first time voice contact on POSAT-1.

"The uplink frequency was 145.975 MHz and the downlink frequency was 435.275 MHz which by coincidence is a frequency with alot of strong QRM at CT1ERC's QTH. At 12:28 UTC 24-FEB-1994, with the satellite heading from North, the mutual window between CT1ERC's station (located in the extreme North of Portugal) and CU2APO (located in the extreme West, half way to N. America) opened and he exchanged a QSO with Pedro Carvalho (CT1DBS). The reports were both S59 but only for short periods, due to the strong bursts of QRM which made communication very difficult. One minute later there appeared Miguel Gomes (CT1EVH) operating the club station CS1APO located in Lisbon and Artur Gomes (CT1DIA) located in Faro (extreme South of Portugal). The QRM affected all stations except CT1DIA who have copy all of us during the whole pass with reports between S57 and S59. Sometimes during the pass two Spanish stations, apparently mobile, in a QSO on the VHF band were completly unaware that they were using a satellite uplink and reaching the downlink with S55 to S57."

CT1ERC wants to thank to the the Consortium for made the satellite available for 10 minutes and to Pedro, CT1DBS, for all his efforts and hours spent in convencing the POSAT Consortium to allow this demonstation to happen.

[The AMSAT News Service (ANS) would like to thank Jose Carlos (CT1ERC) for this bulletin item.]

/EX SB SAT @ AMSAT \$ANS-099.04 AO-13 OPS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 099.04 FROM AMSAT HQ SILVER SPRING, MD APRIL 9, 1994
TO ALL RADIO AMATEURS BT BID: \$ANS-099.04

Current AMSAT Operations Net Schedule For AO-13

AMSAT Operations Nets are planned for the following times. Mode-B Nets are conducted on AO-13 on a downlink frequency of 145.950 MHz. If, at the start of the OPS Net, the frequency of 145.950 MHz is being used for a QSO, OPS Net enthusiasts are asked to move to the alternate frequency of 145.955 MHz.

Date	UTC	Mode	Phs	NCS	Alt NCS
18-Apr-94	0100	В	188	W5IU	WA5ZIB
23-Apr-94	1800	В	180	VE2LVC	W9ODI
30-Apr-94	2130	В	176	W90DI	VE2LVC
09-May-94	0000	В	175	W5IU	WA5ZIB
14-May-94	1700	В	167	WA5ZIB	W5IU
21-May-94	2130	В	185	VE2LVC	W9ODI

Any stations with information on current events would be most welcomed. Also, those interested in discussing technical issues or who have questions about any particular aspect of OSCAR statellite operations, are encouraged to join the OPS Nets. If neither of the Net Control Stations show up, any participant is invited to act as the NCS.

Slow Scanners are invited to join the SSTV sessions on AO-13. The frequency is 145.955 MHz. The net meets at 45 minutes before Mode S, and on Mode B following Mode S on Saturdays and Sundays. Join those sessions or convey your wishes for other SSTV skeds to wb6llo@amsat.org, and he will coordinate your efforts.

/EX

SB SAT @ AMSAT \$ANS-099.05 WEEKLY OSCAR STATUS REPORTS

HR AMSAT NEWS SERVICE BULLETIN 099.05 FROM AMSAT HQ SILVER SPRING, MD APRIL 9, 1994
TO ALL RADIO AMATEURS BT

BID: \$ANS-099.05

Weekly OSCAR Status Reports: 09-APR-94

AO-13: Current Transponder Operating Schedule:

M QST *** AO-13 TRANSPONDER SCHEDULE *** 1994 Apr 07-Jul 11

Mode-B : MA 0 to MA 170 | Mode-BS : MA 170 to MA 218 |

Mode-S : MA 218 to MA 220 | <- S beacon only

Mode-S : MA 220 to MA 230 |<- S transponder; B trsp. is OFF

Mode-BS : MA 230 to MA 250 | Blon/Blat 230/-5

Mode-B : MA 250 to MA 256 |

Omnis : MA 250 to MA 120 | Move to attitude 180/0, Jul 11

[G3RUH/DB2OS/VK5AGR]

FO-20: The following is the current schedule for transponder operations: ANALOG MODE:

20-Apr-94 7:35 -to- 27-Apr-94 7:55 UTC 11-May-94 6:54 -to- 18-May-94 7:20 UTC Digital mode: Unless otherwise noted above.

[Kazu Sakamoto (JJ1WTK) qga02014@niftyserve.or.jp]

AO-27: DL6AAU reports that he has hear some "big" signals from AO-27 with a indoor groundplane antenna without preamp. He receives signals S56 to S59 from stations on Buffin Island, which for DL6AAU, is considered a DX contact. DL6AAU notes that AO-27 really better signal than its famous "cousin" AO-21. [DL6UAA]

AO-21: A new digital voice message started to transmit this week on AO-21 on the occasion of the AMSAT-OE meeting. The actual schedule is as follows:

RUDAK-II Schedule: (Downlink 145.987 MHz, Uplink 435.016 MHz)

min/10 Beacon Mode

0..6 FM Repeater

7 Digital Audio

8..9 AFSK TLM

The following is the message that is broadcasted on AO-21 during the packet beacon downlink: "++ Hi, this is the RUDAK-II experiment on AMSAT OSCAR 21 ++ On occasion of the first AMSAT-OE meeting we send greetings to HAM's & all over the world. We wish you to have PEACEFUL contacts via amateur radio!" Reports are welcome to:

Amateur Radio Group Anichstr. 46 A-6020 Innsbruck Austria

[LW2DTZ]

KO-23: Working well and has a new pair of images. [WH6I]

KO-25: Also working well. [WH6I]

IO-26: Working well on the secondary frequency as advertised. [WH6I]

AO-16: Working well. [WH6I]

LO-19: Also working well. [WH6I]

The AMSAT NEWS Service (ANS) is looking for volunteers to contribute weekly

OSCAR status reports. If you have a favorite OSCAR which you work on a regular basis and would like to contribute to this bulletin, please send your observations to WDOHHU at his CompuServe address of 70524,2272, on INTERNET at wdOhhu@amsat.org, or to his local packet BBS in the Denver, CO area, WDOHHU @ WOLJF.#NECO.CO.USA.NOAM. Also, if you find that the current set of orbital elements are not generating the correct AOS/LOS times at your QTH, PLEASE INCLUDE THAT INFORMATION AS WELL. The information you provide will be of value to all OSCAR enthusiasts.

/EX

Date: 10 Apr 94 23:57:11 GMT From: news-mail-gateway@ucsd.edu Subject: Beg To Differ, Tnx

To: info-hams@ucsd.edu

According to Info-Hams Mailing List and Newsgroup:

- > Subject: STOP SENDING HAMS ON USENET [(XXXX) !!! CENSORED]
- > To: info-hams@ucsd.edu

>

- > > >I think that is the main problem. Cross-posting such lengthy articles is
- > > > a pure waste of bandwidth.
- > gilbaronw0mn@delphi.com (Gilbert Baron) writes:
- > > >
- >> >Actually, a properly cross-posted article does not use any more bandwidth
- >> >than an article posted to only one newsgroup. That is why crossposting
- > > >is different from posting many times.

It occurs to me that a particular Newsgroup should pertain to a specific topic. Not a jumble of as many things as can be stuffed into it. That is the obvious intention of having so MANY different, and exciting newgroups to choose from.

Although "Cross Posting" as you call it, may not incur additional "bandwidth" in posting the original article, it certainly does increase the size of each newsgroups dumped message. Since I am using UUCP which costs me .10 Cents a minute to retrieve my newsgroups, it's even more annoying to find that I'm getting mutlipule copies of material I am not even remotely interested in being placed along-side info that I am very much interested in, simply because it is remotely connected to Ham-Radio. I would not fault the newgroups themselves as much as I would the person or group that was doing the posting.

That sorta shoots the who Idea of having so MANY newsgroups in the foot doesn't it?

If I subscribe to several different newsgroups all pertaining to HAM-RADIO

in General, I don't expect to see the same posting on each newsgroup. If there were a few General Coverage Newsgroups I might expect it, but not on different HAM-RADIO areas, like "space", or "digital", etc... I don't expect to see DX Info in either of them. In actuality I would be annoyed by finding DX news in a Ham-Digital newsgroup.

It's seems to me that it does cause an increase in what it costs to operate my UUCP system, if someone is posting multipule copies of news to several individual newsgroups which I subscribe to. And I am only on such operator. I am sure there are hundreds, or thousands just like me all around the world.

```
> > Please explain why crossposting does not use more bandwidth. Inquiring minds
> > would like to know. 10k x 2 lists is 20k of data. How can that not be a
> > waste. It lets more people see it but many people see it more than once and
> > that is an obvious waste of bandwidth. Think about it for a minute.
```

> I have suggested in the past that FAQ posters post the entire message in
> rec.radio.info and pointers to it in all the other newsgroups, but they
> insist on doing it this way. And to be fair to them, while I disagree
> with them, it doesn't take extra bandwidth to send the files, just to
> store them. Shortening up the expire time a little takes care of it at my
> site.
>

> Robert Smits > VE7EMD

> Ladysmith B.C.

There is *no* idiotproof filter.

Idiots are proof against anything!
- Richard Chycoski, VE7CVS

Internet: timh@wx21.sccsi.com

> e-mail: emd@ham.almanac.bc.ca

Ah, but it DOES take extra bandwidth to send them to my system from the news-server. It takes my system extra time, and cost to download the same FAQ, or whatever, over a UUCP connection. Storage? I can dump the message once it's here, but I can't stop it on it's way if I don't know its coming down the line.

I am just a small operator of a UUCP to TCP/IP Lan. So if you sent a 1mg file to more than one newsgroup I subscribe to, you are seriously cutting into my budget.

Seems to me that common sense would dictate that you would only forward such material to one newsgroup, and store the FAQ at a well known 'anonymous' access site for folks to pick up at will.

Tim R. Havens (WX2L)

TSPAN - Cumberland, Cnty. AmprNet: wx21@wx21.ampr.org UUCP: nuchat!wx21!timh Via US Mail -324 Lebanon Rd., Millville, NJ 08302, USA Phone: (609) 451-7773 Date: 10 Apr 94 23:25:29 GMT From: news-mail-gateway@ucsd.edu Subject: Delivery Failure Report To: info-hams@ucsd.edu NAME: Mail Postmaster From: FUNC: TEL: <POSTMASTER AT A1 AT ANDV02> To: net%"Info-Hams@UCSD.EDU"@RCVAX@MRGATE ALL-IN-1 was unable to deliver your message dated to ADAMS, SE - no such ALL-IN-1 account on node ANDV02 The subject of the message was : Info-Hams Digest V94 #400 Date: 9 Apr 94 23:35:00 GMT From: netcomsv!netcomsv!matrix!zach.rutledge@decwrl.dec.com Subject: Ham radios on planes - De To: info-hams@ucsd.edu W> .@SUBJECT:Ham radios on planes - Definitive answ > .@FROM :William=E.=Newkirk%Pubs%GenAv.Mlb@ns14.cca.CR.rockwell.COM N > .@MSGID :<199404061427.HAA15953@ucsd.edu> N > From: William=E.=Newkirk%Pubs%GenAv.Mlb@ns14.cca.CR.rockwell.COM > Newsgroups: rec.radio.amateur.misc > Subject: Ham radios on planes - Definitive answ > Date: 6 Apr 94 14:02:25 GMT > Message-ID: <199404061427.HAA15953@ucsd.edu>

W> it's more than that. the cell radio system doesn't like having users
> accessing more than 1 cell at a time (ideally). when you are up in the plane,
> you are able to hit hundreds at the same time. This gives the cell system a
> hernia since it's not set up for such a thing -- i would think the cell radio

1. You would think that the first cell site to pick up your signal would

carry it on as far as it could, right? I do see how reaching many at once would pose a problem, but, what about 2. areas where you're in your car and you're in an area where two cells overlap? That does happen, especially here in Alabama where the hills are just large enough to wreak havoc on anything over 400Mhz... But, back to the second part: How would cell phones or sites know which site would carry the phone? I don't see how both would as this would interject other problems which I don't want to get into. The answer to the problem lies in that second part. The only difference in two overlapping on the road and 50+ overlapping in the air is that that one cell that picks your signal up can carry it a lot longer distance... I see how this could cause other problems, though. What about a preson on another cell 20 miles away, who's on the same frequency? You're up high enough to reach it, and it you, so...?

W> if you can't be out of touch for even a couple of hours, why are you even > getting on a plane in the first place?

You have a point there!

Zach!

- - -

. SPEED 1.40 [NR] . Alzheimers is very..ah...uh....um

Date: 11 Apr 1994 01:23:42 GMT

From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!wupost!bigfoot.wustl.edu!cec3!

jlw3@network.ucsd.edu

Subject: HELP! The FCC will not is

To: info-hams@ucsd.edu

Bob Citkowski (tardis@atd.mke.ab.com) wrote:

:ok let's quit sobbing and askwhenthe vec'sand ve sent in the paperwork for your :ticket. sometime it gets screwedup andtakes longer to get sent to the fcc. i'd :check with the ve that sponsored your group before you do a chicken little with :your congressman. heck, for all we know you got it in the mail today.go through :the correct channels before you nuke the fcc.

You had long lines so I shortened a couple. But, so what *if*, as in my case, the csce was 23 dec, mailed from vec on 29 dec and still heard nothing? Sick the representative on the fcc now? Please, pretty please????

--jesse

Date: Sun, 10 Apr 1994 23:11:47 GMT

From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!pipex!sunic!trane.uninett.no!

nac.no!ifi.uio.no!wabbit.cc.uow.edu.au!news.ci.com.au!metro!ipso!

rwc@network.ucsd.edu

Subject: IPS Daily Report - 10 April 94

To: info-hams@ucsd.edu

SUBJ: IPS DAILY SOLAR AND GEOPHYSICAL REPORT ISSUED AT 10/2330Z APRIL 1994 BY IPS RADIO AND SPACE SERVICES FROM THE REGIONAL WARNING CENTRE (RWC), SYDNEY. SUMMARY FOR 10 APRIL AND FORECAST UP TO 13 APRIL

IPS Warning 10 was issued on 31 March and is current for intyerval April 3-14 (coronal hole).

1A. SOLAR SUMMARY Activity: very low

Flares: none.

Observed 10.7 cm flux/Equivalent Sunspot Number: 075/013

1B. SOLAR FORECAST

11 April 12 April 13 April
Activity Very low Very low Very low
Fadeouts None expected None expected

Forecast 10.7 cm flux/Equivalent Sunspot Number: 075/013

1C. SOLAR COMMENT

None.

2A. MAGNETIC SUMMARY

Geomagnetic field at Learmonth: unsettled to active, with one minor storm period

Estimated Indices : A K Observed A Index 9 April

Learmonth 23 3334 5443

Fredericksburg 25 39 Planetary 30 45

Observed Kp for 9 April: 6556 5444

2B. MAGNETIC FORECAST

DATE Ap CONDITIONS 11 Apr 25 Active. 12 Apr 25 Active. 13 Apr 25 Active.

2C. MAGNETIC COMMENT None.

3A. GLOBAL HF PROPAGATION SUMMARY

LATITUDE BAND

DATE LOW MIDDLE HIGH
10 Apr normal fair fair-poor

PCA Event : None.

3B. GLOBAL HF PROPAGATION FORECAST

LATITUDE BAND

DA	ΓΕ	LOW	MIDDLE	HIGH
11	Apr	fair	poor	poor
12	Apr	fair	poor	poor
13	Apr	fair	poor	poor

3C. GLOBAL HF PROPAGATION COMMENT

Fair-Poor HF comms quality expected at times over next three days. Conditions at high lats are expected to remain degraded until April 14.

4A. AUSTRALIAN REGION IONOSPHERIC SUMMARY

MUFs at Sydney were 10 to 15% below predicted monthly values

Observed T index for 10 April: 9

Predicted Monthly T Index for April is 40.

4B. AUSTRALIAN REGION IONOSPHERIC FORECAST

DATE	T-index	MUFs
	_	4

11 Apr 0 15 to 20% below predicted monthly values.

12 Apr $\,$ 20 $\,$ 10 to 15% below predicted monthly values.

13 Apr 20 10 to 15% below predicted monthly values.

4C. AUSTRALIAN REGION COMMENT

Fair-Poor HF comms conditions expected until April 13, especially during local night. Depressions of 20-30% observed at Hobart. Strong sporadic E layer is expected at times today.

- -

IPS Regional Warning Centre, Sydney | IPS Radio and Space Services

email: rwc@ips.oz.au fax: +61 2 4148331 | PO Box 5606

RWC Duty Forecaster tel: +61 2 4148329 | West Chatswood NSW 2057

Recorded Message tel: +61 2 4148330 | AUSTRALIA

```
Date: 10 Apr 94 20:21:07
From: ihnp4.ucsd.edu!swrinde!gatech!howland.reston.ans.net!newsserver.jvnc.net!
netnews.upenn.edu!mipg.upenn.edu!yee@network.ucsd.edu
Subject: online repeater directory
To: info-hams@ucsd.edu
Now that the repeater project is back on track (I hope), I am asking
for volunteer assistance in adding to this database. Anyone willing?
Medical Image Processing Group
                                                      Conway Yee, N2JWQ
411 Blockley Hall
                                   | EMAIL : yee@mipg.upenn.edu
418 Service Drive
                                  | VOICE : 1 (215) 662-6780
Philadelphia, PA 19104-6021 (USA) | FAX : 1 (215) 898-9145
Date: 9 Apr 94 19:56:07 GMT
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!news.intercon.com!news1.digex.net!
rtp.vnet.net!news.sprintlink.net!connected.com!beauty!rwing!eskimo!
wrt@network.ucsd.edu
Subject: We wish you best 73's
To: info-hams@ucsd.edu
In article <2042ok$8j1@oak.oakland.edu>,
prvalko <prvalko@vela.acs.oakland.edu> wrote:
>hahahahaha
>Heard on the repeater, "You are full scale but really noisy."
>=paul= wb8zjl
What's so odd about that? Are you confusing full scale with full
quieting? I've heard plenty of S9+ signals that were so noisy I could
hardly copy....
W7LZP
```

```
Date: 9 Apr 94 19:49:50 GMT
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!news.intercon.com!
news1.digex.net!rtp.vnet.net!news.sprintlink.net!connected.com!beauty!rwing!
eskimo!wrt@network.ucsd.edu
Subject: WWV/H's Antennas
To: info-hams@ucsd.edu
In article <Cny5tz.4A3@news.hawaii.edu>,
Jeffrey Herman < jherman@uhunix3.uhcc.Hawaii.Edu> wrote:
>Someone was kind enought to provide a copy of the (old) NBS information
>pamphlet. It was very interesting, but I found the following a bit
>suprising:
>
>>
                    1b. Antennas and Modulation
       The broadcasts on 5, 10, and 15 MHz from WWVH are from phased
>>
>>vertical half-wave dipole arrays. They are designed and oriented
>>to radiate a cardioid pattern directing maximum gain in a westerly
>>direction. The 2.5 MHz antenna at WWVH and all antennas at WWV are
>>half-wave dipoles that radiate omnidirectional patterns.
>
>
>For such an an elaborate installation and because of the vital service
>they provide I would have expected NBS to use antennas more
sophisticated
>than dipoles; there certainly are antennas with more gain which would
>give the same radiation patterns.
>Gary? Al?
>Jeff NH6IL
```

I think you are forgetting WWV's mission: they are not out to work DX, they are trying to provide the maximum coverage to the maximum number of people. For this, a half-wave vertical dipole is an excellent antenna. It has a mix of high and low angle radiation and everything in between. It's the same reason you wouldn't use a beam while conducting a local net - you need to talk to everybody. A certain amount of phasing has been used probably to overcome their location at the foot of the Rockies (just a guess).

Incidentally, there is no such thing as an "antenna with more gain which would give the same radiation pattern". Can't happen. Antenna gain is created by intentionally distorting the radiation pattern and/or angle in the favored direction. You can't get something for nothing.

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End of Info-Hams Digest V94 #401 **********